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100

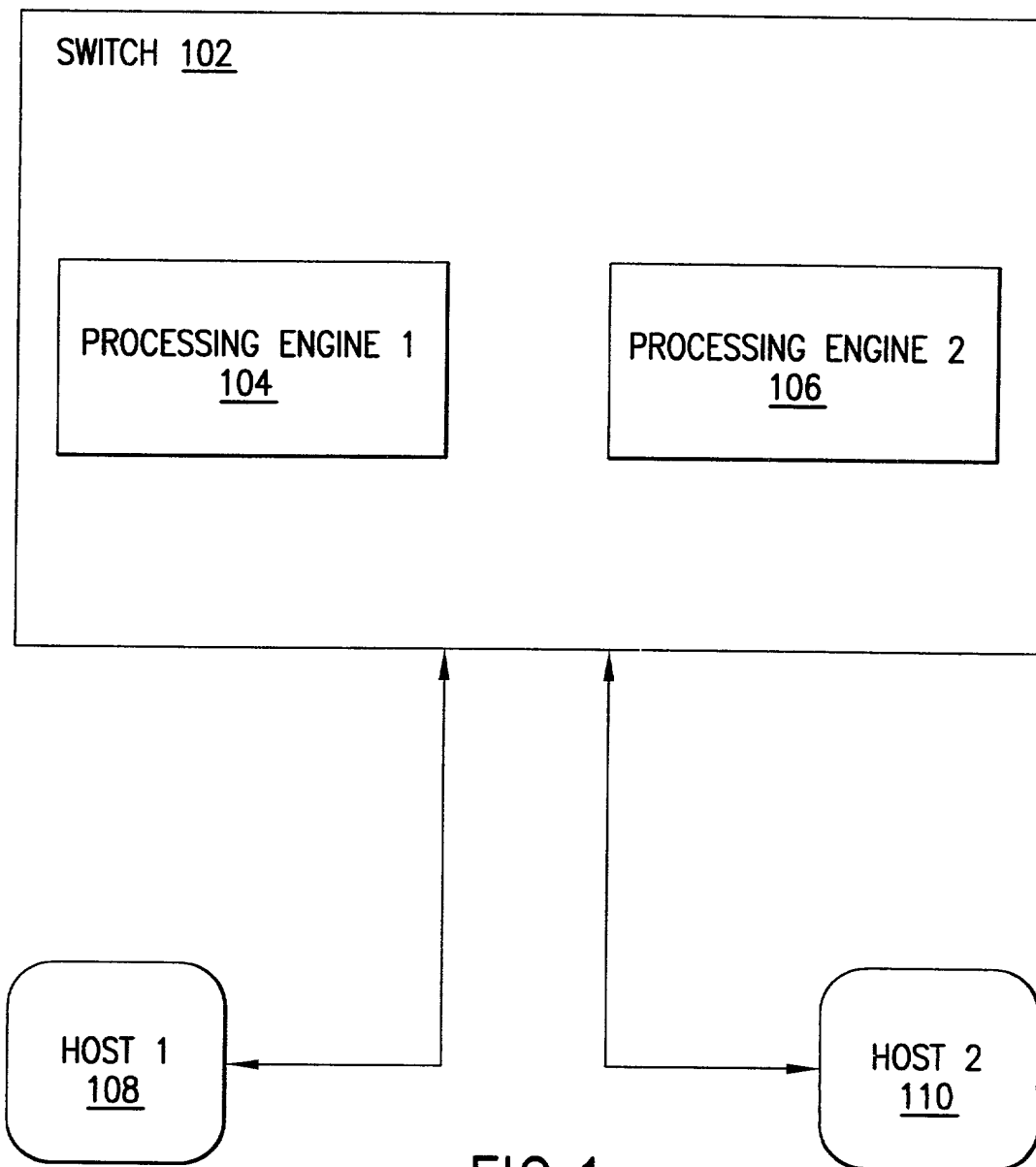


FIG.1



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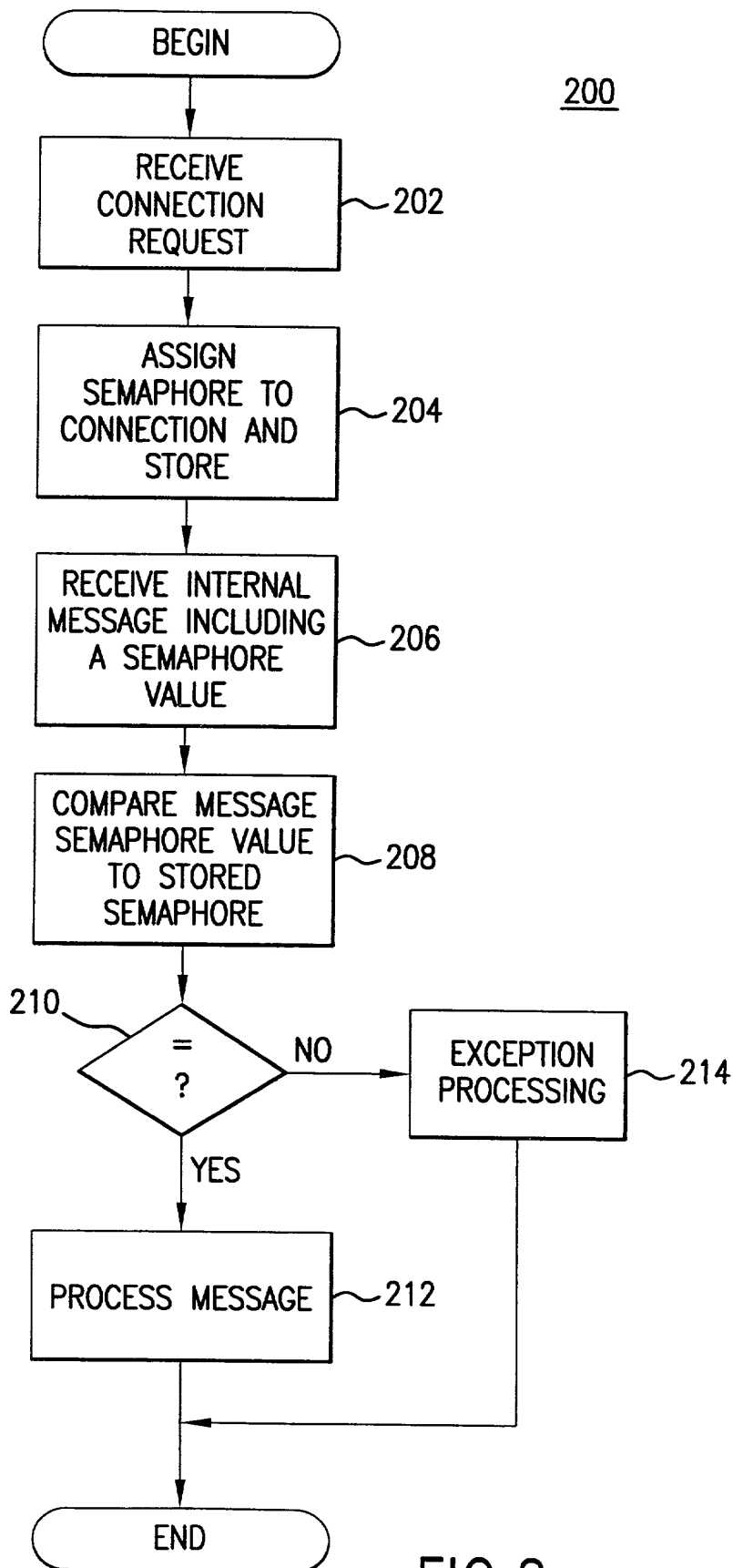
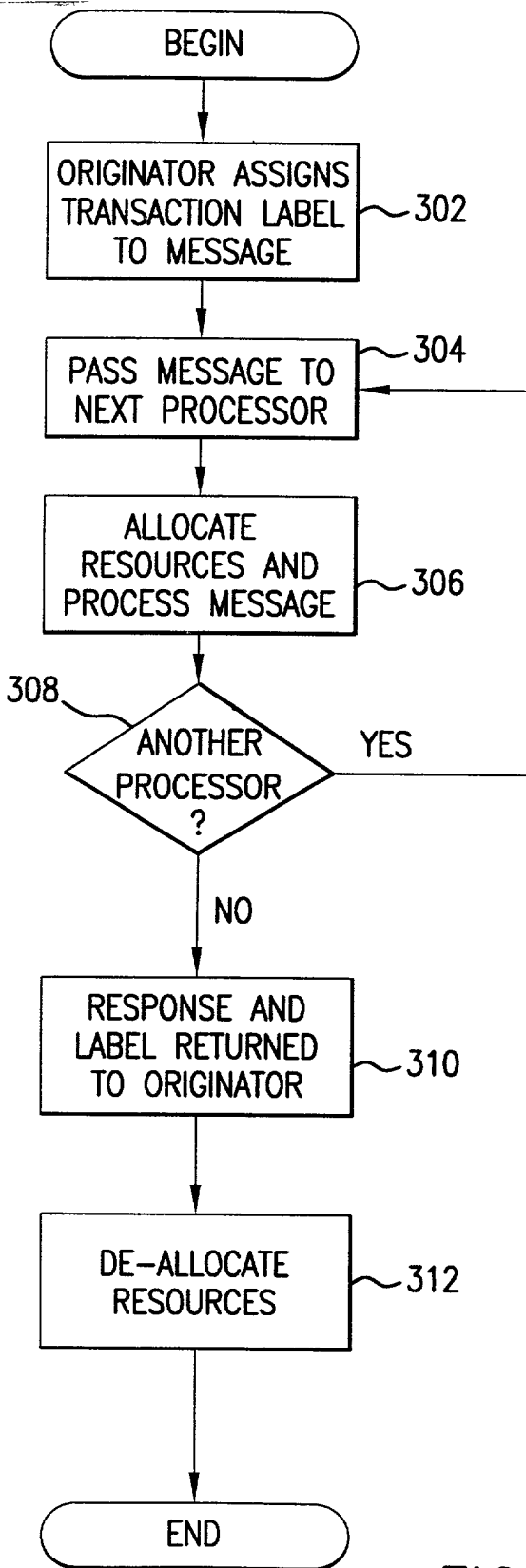


FIG.2



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300

FIG.3

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500

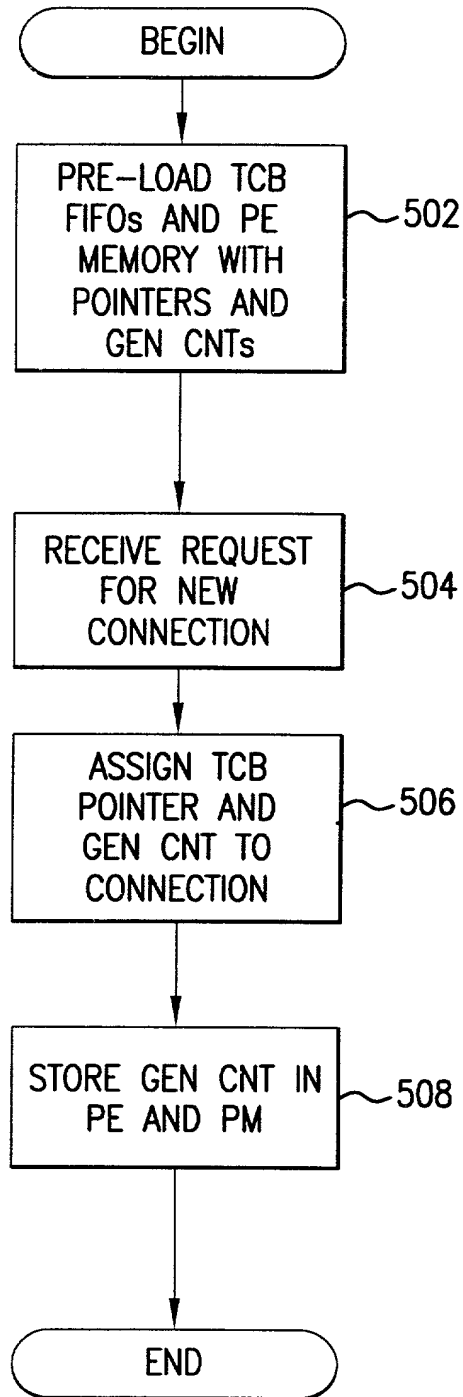
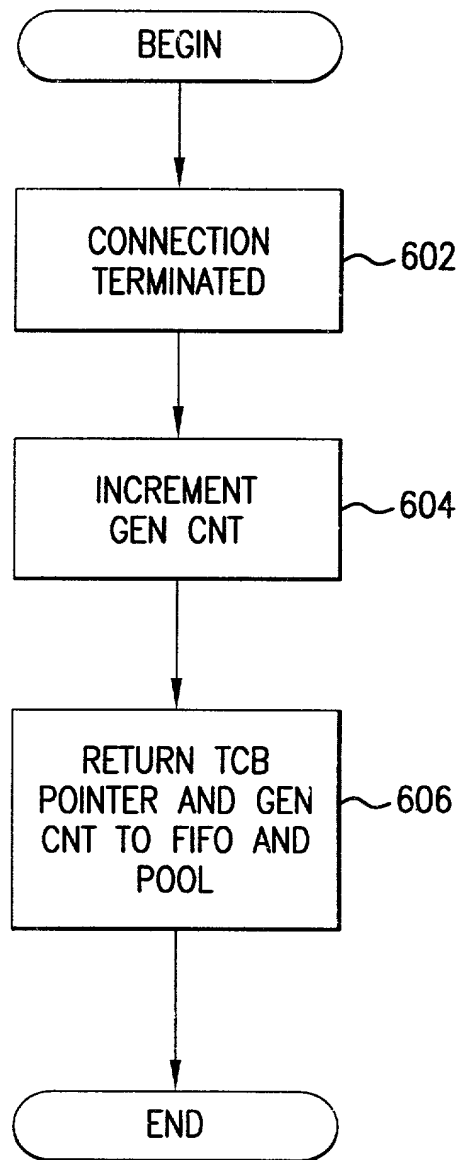


FIG.5



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600

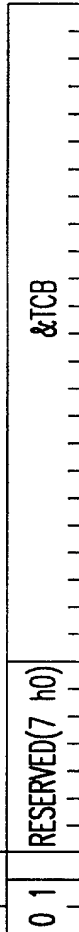
FIG.6



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# NEW CONNECTION

## PACKET CODES

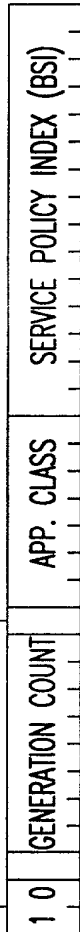


MSB (33)

LSB (0)

## PACKET CODES

RESERVED (1 b0)



MSB (33)

23|22

16|15

LSB (0)

ELEMENT	BITS	DESCRIPTION
PACKET CODES	2	2'b11: INVALID/RESERVED (FOR TIMESTAMP, FORMAT TBD). 2'b01: START OF PACKET: {NEW, &TCB} 2'b10: END OF PACKET: {APPLICATION CLASS, SERVICE POLICY INDEX} 2'b00: INVALID/RESERVED.
NEW CONNECTION	1	LOGIC 1 INDICATES A NEWLY ESTABLISHED CONNECTION; LOGIC 0 INDICATES A "CAM HIT" ON A CURRENTLY ACTIVE CONNECTION.
RESERVED	AS NEEDED	LOGIC 0; RESERVED
&TCB	24	POINTER TO A FLOW TCB OR A CLIENT TCB OR A RST/DRP/IGN POINTER.
GENERATION COUNT	8	NUMBER OF TIMES THIS & TCB HAS BEEN RECYCLED.
APPLICATION CLASS	7	APPLICATION CLASS FIELD FROM SERVICE LOOKASIDE CAM.
SERVICE POLICY INDEX	16	SERVICE POLICY INDEX FROM SERVICE LOOKASIDE CAM (a.k.a. "BSI").

FIG.7A

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SERVICE POLICY IS A 22-BIT QUANTITY;  
BIT NUMBER 57 IN THE UPPER SPM RESERVED FIELD IS USED TO INDICATE THE CLIENT FLAG;  
label IS A 6-BIT TRANSACTION LABEL TO BE RETURNED TO PAKMAN UPON COMPLETION OF COM;  
ALL OTHER DATA FIELDS ARE ALIGNED ON 8-BIT BOUNDARIES AS INDICATED BY THE | MARKS.

FIG. 7B-1

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ENCODING	BITS	DESCRIPTION
SOM	6	START OF MARKER PACKET: &TCB + PROTOCOL + Src IP ADDRESS
SPM	6	SERVICE POLICY MARKER: CLIENT FLAG + 22-BIT SERVICE POLICY + 16 BIT SERVER INDEX.
SHM	6	SERVICE HISTORY MARKER: 32-BIT RESERVED FIELD + 32-BIT HISTORY POINTER
EOM	6	END OF MARKER PACKET: DEST IP ADDRESS + Src AND DEST PORTS
COM	6	COMMAND: OPTIONS APPEAR IN TABLE 5-2 BELOW; USUALLY DELETE.
NOP	6	LOGIC 0; RESERVED; IGNORE PACKET DATA AND MESSAGE TAGS

ENCODING	BITS	DESCRIPTION
ADD	6	ASSOCIATE THE &xTCB WITH THE 5-TUPLE KEY, AND RETURN THE TRANSACTION LABEL BACK TO PAKMAN.
DEL	6	DELETE THE ASSOCIATION OF THE 5-TUPLE KEY. (&xTCB NOT REQUIRED) RETURN THE TRANSACTION LABEL BACK TO PAKMAN.
PASS	6	SEND DELETE DATAGRAM TO PE, BUT DO NOT CHANGE STATE OF BLT CAM'S.
NOP	6	LOGIC 0; RESERVED

FIG. 7B-2



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- BLT - PE POST FORMAT FOR DELETE THE CONNECTION

33 32/31 30/29 24/23 16 0

SOP	CMD	TLABEL	&TCB	
MOP	GEN_CNT		SERVICE POLICY	
MOP	TIP			
MOP	SERVICE INDEX		TP	
EOP			HISTORY Ptr	

# POSTED WRITE DATA ELEMENT SUMMARY

ELEMENT	BITS	DESCRIPTION
CMD	2	CMD 1 SERVER DELETE CMD 2 CLIENT DELETE
TLABEL	6	LABELS FOR ADD OR DELETE
SERVICE POLICE	22	SERVICE POLICE INDEX FOR MAPPING TO SERVER IP ADDRESS
SERVER INDEX	16	ADDRESS POINTER TO LOCATE THE SERVER TABLE
TIP	32	TALISMAN'S IP ADDRESS
TP	16	TALISMAN'S PORT
&TCB	24	TCB ADDRESS POINTER
TIME STAMP	32	TBD

FIG.7C--1



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BLT -- PE POST FORMAT FOR NEW SERVICE

33	32/31	30/29	23/22	16/15	0
01	SOP	CMD	RESERVED	CLASS	SERVICE POLICY
00	MOP	SrcIP			
00	MOP	GEN_CNT	&ftCB		
10	EOP	RESERVE		SrcPORT	

- POSTED WRITE DATA ELEMENT SUMMARY

ELEMENT	BITS	DESCRIPTION
CMD	2	CMD - 0 &ftCB, NEW SERVICE
SERVICE POLICE	16	SERVICE POLICE INDEX FOR MAPPING TO SERVER IP ADDRESS
SrcIP	32	CLIENT IP ADDRESS THAT REQUEST FOR SERVICE
&ftCB	24	FLOW TCB ADDRESS POINTER
TIME STAMP	32	FOR TRACKING THE PACKET INSIDE EACH BLOCK. TBD

FIG.7C-2

**NEW PACKET**

33 32/31 30/29 24/23

SOP	CMD		NULL	&tTCB OR &sTCB
MOP	&cTCB			
MOP	SrcIP			
MOP	TIP			
MOP	ServerIP			
MOP	TPO		ServerPO	
MOP	Tsequence			
MOP	MAC ADDRESS			
MOP	Vlan TAG		MAC ADDRESS (HIGH TWO BYTE)	
MOP	GEN_CNT		SERVER INDEX	
MOP			CSI/BSI	
EOP	HISTORY POINTER			

FOR DELETE PACKET

33 32/31 30/29 24/23

SOP	CMD	TLABEL	&fTCB OR &sTCB
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FIG. 7D



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63 59

15

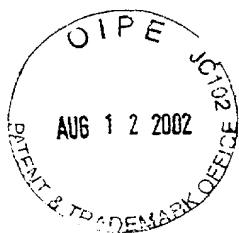
CMD	OPTIONS	TOTAL LENGTH	FIRST WORD
COMMAND			
OPTIONS			
TCB (128 BYTES)			
OPTIONAL DATA (UP TO BUFFER SIZE)			

TRANSACTION

PM COMMANDS TO EMU

COMMAND NAME	COMMAND FIELD	REQUIRED FIELDS
PM RESET	'h1	BUFFER NUMBER
PM LockSN	'h2	BUFFER NUMBER, GENERATION COUNT AND SEQUENCE NUMBER
PM READ	'h3	BUFFER NUMBER AND GENERATION COUNT
PM PURGE	'h4	BUFFER NUMBER
PM POST WITH DefAck	'h5	BUFFER NUMBER, GENERATION COUNT, SEQUENCE NUMBER, TCB AND DATA
PM POST	'h6	BUFFER NUMBER, GENERATION COUNT, SEQUENCE NUMBER, TCB AND DATA
PM POST WITH LockSN	'h7	BUFFER NUMBER, GENERATION COUNT, SEQUENCE NUMBER, TCB AND DATA

FIG.7E



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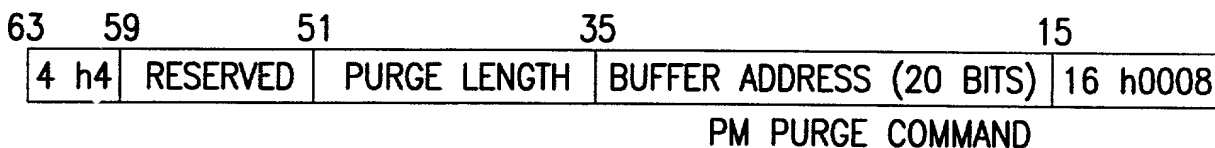
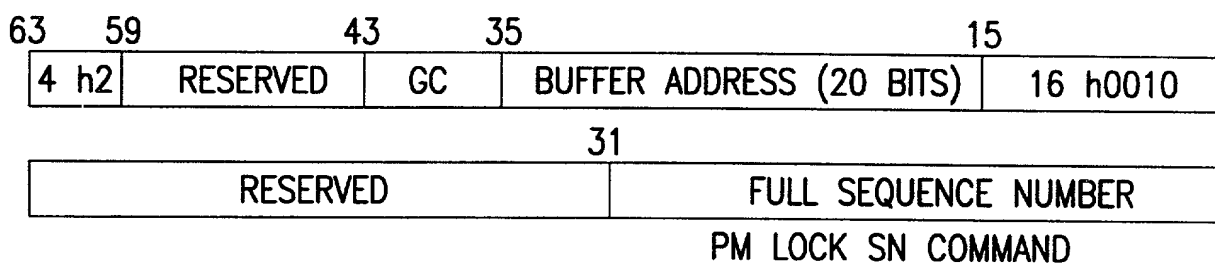


FIG.7F-1



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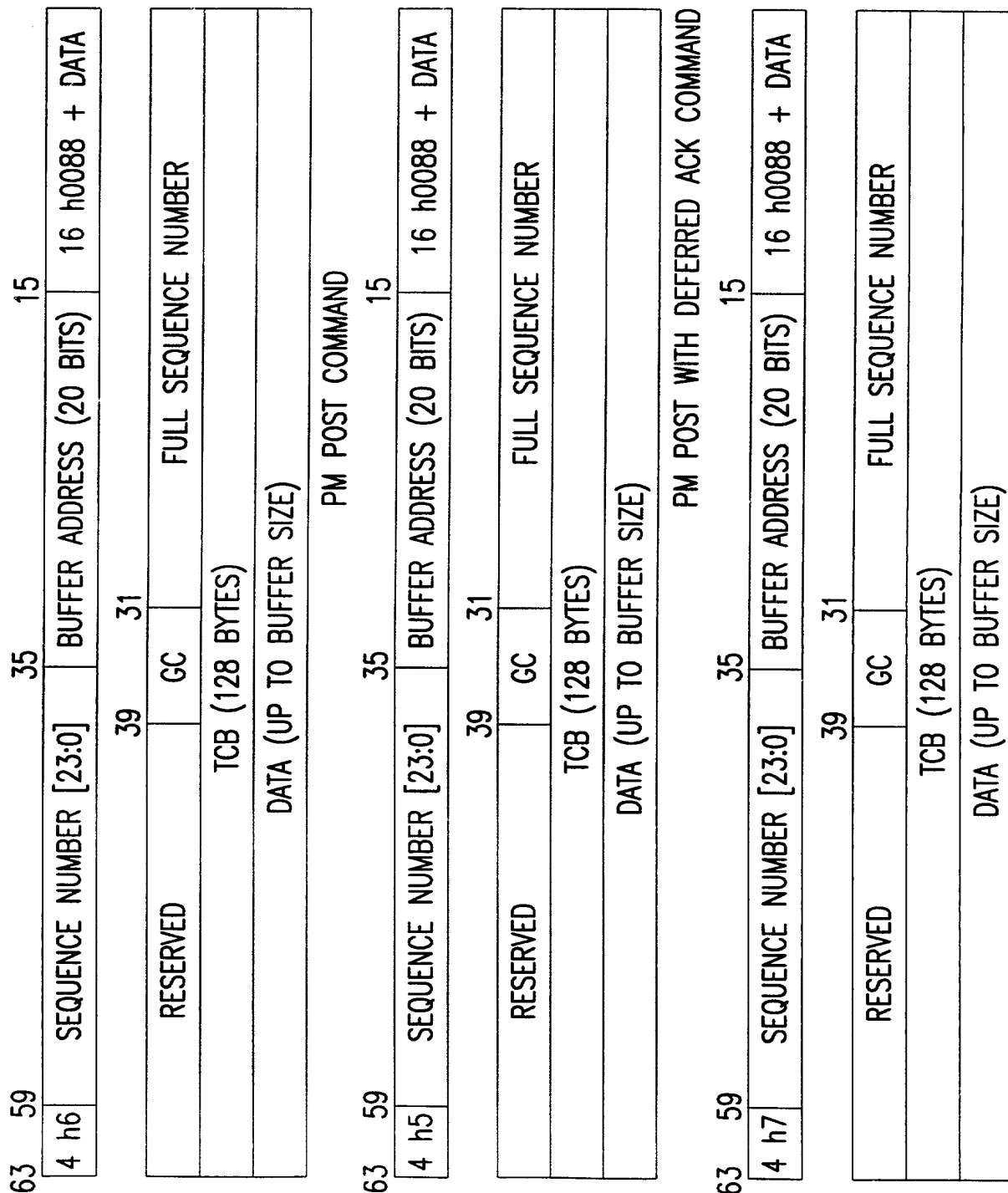


FIG.7F--2

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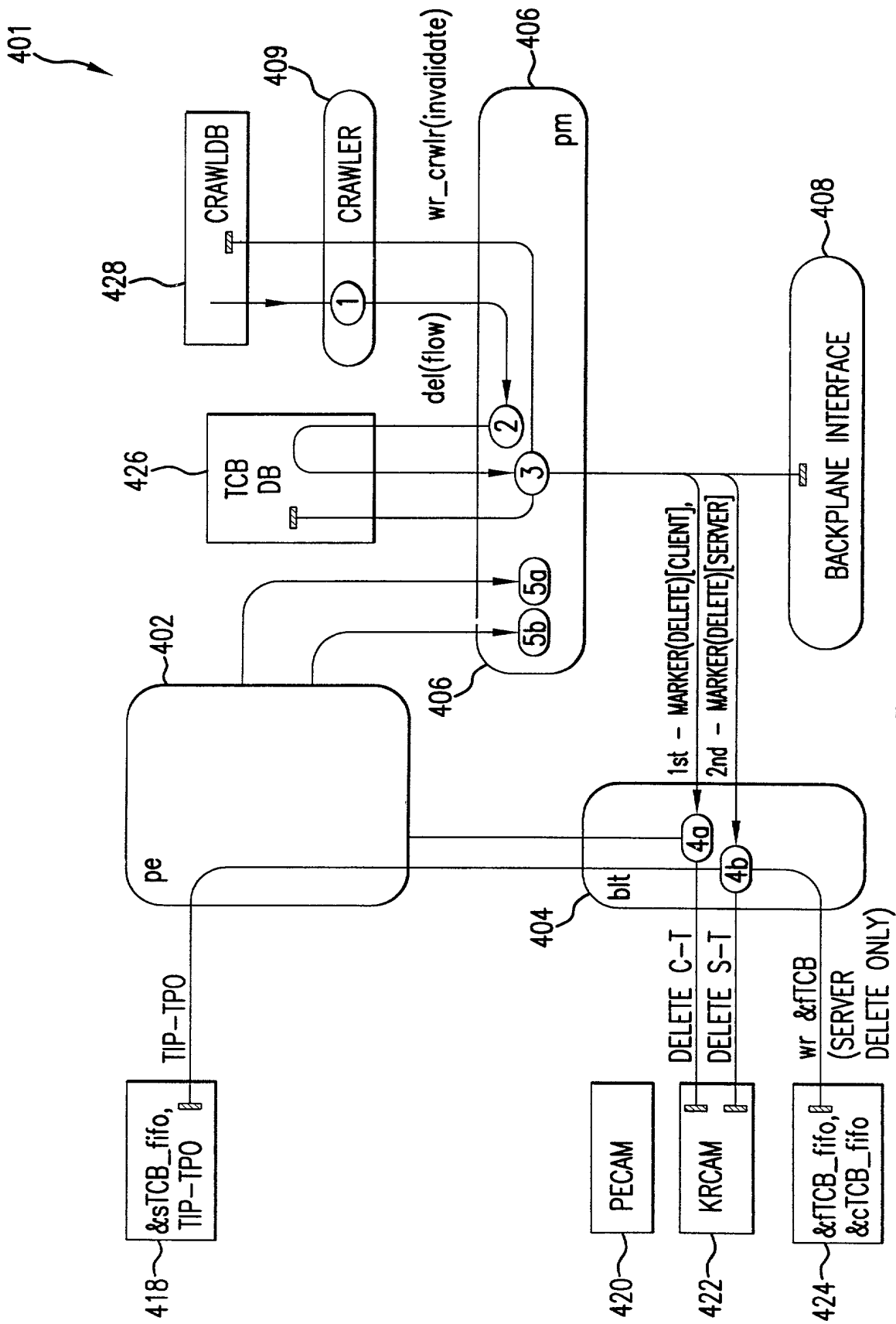


FIG. 8



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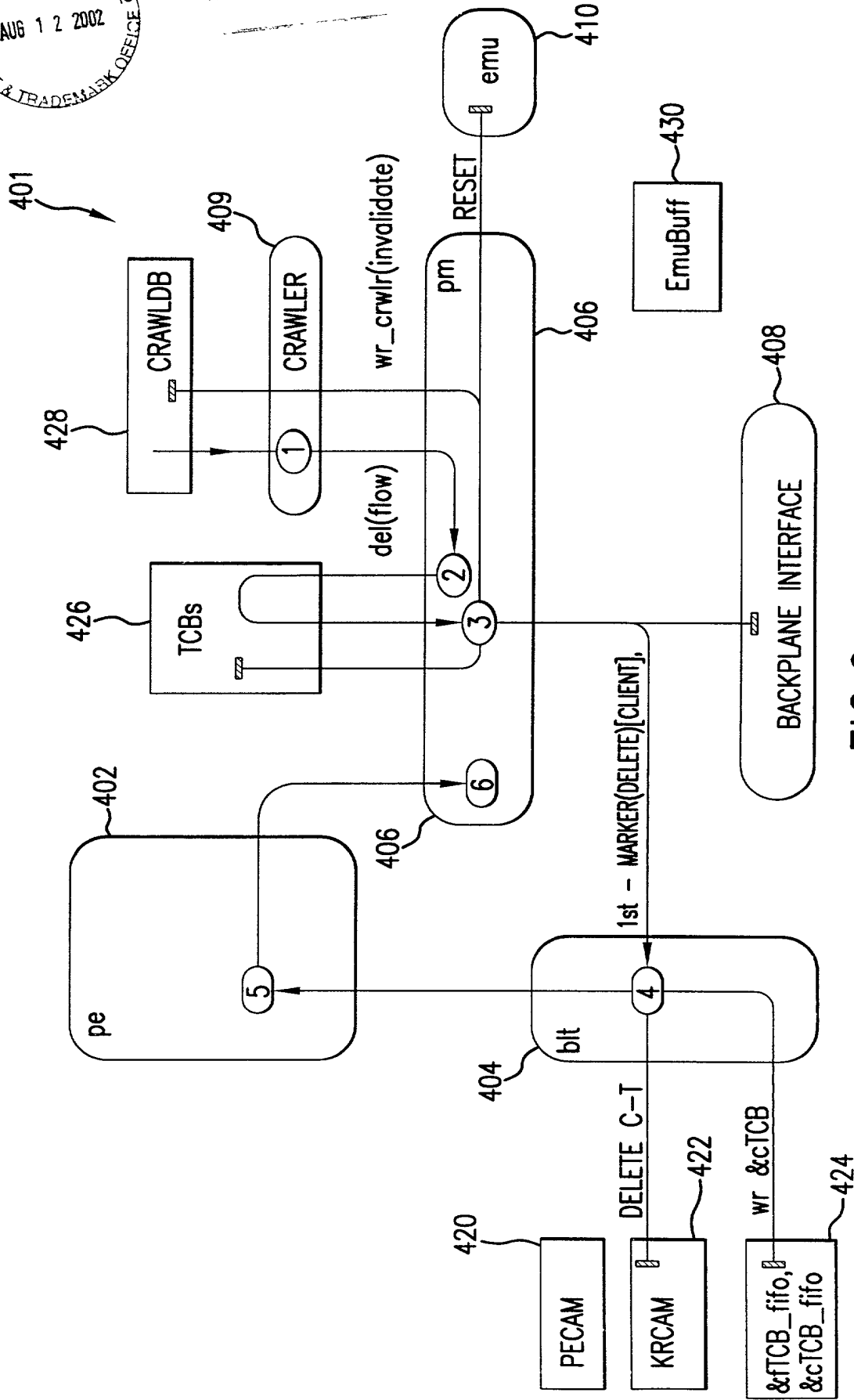


FIG. 9



**FIG. 10**